

Health Advisory
Minnesota Department of Health

The following message is from the Minnesota Department of Health (MDH) and is being forwarded to the local health jurisdictions in North Dakota as well.

Please forward this information onto Physicians, Nurses, or other Healthcare workers at your facility that may find it relevant.

A 7-month old immunocompromised infant recently had a poliovirus type 1 (of 3 serotypes) isolated from a stool culture. Subsequent molecular testing (PCR) by the MDH laboratory identified this poliovirus type 1 strain as a vaccine-derived poliovirus. This strain was initially a strain of poliovirus contained in live attenuated oral polio vaccine (OPV). The MDH laboratory and CDC have determined that this particular strain has been replicating for approximately two years. Since the United States has not used live attenuated OPV since 2000, the original source of this strain is thought to be a person who received live OPV in another country. As this vaccine-derived poliovirus has replicated over time, it has mutated and reverted to a strain that is more like wild poliovirus; more transmissible and possibly more likely to cause paralytic disease than ordinary live vaccine derived strains.

The infant, who is from a generally unvaccinated Minnesota community, has a history of multiple hospitalizations since July and is currently hospitalized in the Twin Cities metro area. Because the inferred age of this virus is greater than the age of the infant, the patient was likely infected via exposure to someone who was shedding this virus. It is possible that this virus infected a number of other people before being spread to this infant. It is unknown if or how long this strain of poliovirus has circulated in Minnesota or the United States.

This infant has the potential to spread poliovirus to other unvaccinated persons who come in contact with stool or oral secretions. Widespread transmission in a vaccinated community is unlikely.

Investigation of this case involves a two-tiered approach: community and hospital-based. The goals are 1) to identify evidence of virus circulating in the community and/or possible nosocomial transmission and 2) to provide vaccine to healthcare workers and potentially exposed community members who are not completely vaccinated against polio. Widespread vaccination in the broader community is not recommended at this time. Providers should assure that their patients are up to date on polio vaccination as well as other immunizations.

Please contact the Immunization, Tuberculosis, and International Health Section at the Minnesota Department of Health at 612.676.5414 if you have questions or concerns.

The North Dakota Department of Health will continue to monitor the situation in Minnesota. Providers are reminded to assess immunization levels of their patients and provide needed vaccination.